

Peer Mentorship

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## **1. Introduction:**

I participated in the First-Year-Student-Success Peer Mentor Program under the supervision of Professor Leonora Thorbjornsen. The internship was mostly virtual in its nature; however, I was on campus the entire time for any in person events or meetings that needed to take place. The duties and responsibilities of a peer mentor cannot be understated. I was tasked with helping undergraduate cybersecurity students who were struggling in the degree program. This means that I would answer questions the students would have about campus resources or general class work. I also would frequently communicate with my supervisor about in person events or meetings that would benefit first or second year students. My goal for the internship was to improve my skills in some way from every assignment and provide as much positive assistance as I could. The largest take-aways from this internship for me would be the increased communication, networking, time management, and leaderships skills. These all increased from their previously less than stellar states. This was because I never had a role like this before and have always been more introverted, but the nature of the internship caused me to change my ways. I was forced to adapt, and I did so effectively. I was initially unsure of exactly what the internship entailed, but this was cleared up at the first meeting hosted by my supervisor. This occurred over Zoom, where the goals, resources at our disposal, and methods to get in the required hours would be explained. She more than adequately prepared me to perform my duties effectively without constant supervision and questioning. The first step in the actual internship was to outline how students would contact me and how my hours would get logged. I decided to set up a discord account and zoom meeting code for students to have meetings with me. I sent them an email with all of this information as well as a personal introduction that included some of my background here at the university, such as course history and knowledge. I conveyed that they could reach out at any time they needed to, but the best time to contact me was every Thursday between the hours of 10 a.m. and 8 p.m. This is because I had no class during this time, and I would dedicate time to friends and family to the weekends. The plan I chose would also ensure that I got at least ten hours of work logged each week. Any additional assignments or events would add on to this. This would also ensure I had ample time to complete my other course work before or after Thursday and not fall behind in my senior year. I will be elaborating more on the specific sections of the internship further below.

## **2. Beginning the Internship:**

The internship is an Old Dominion academic advising program and mentorship to students in the same major path. The goal of the program is to help students that are new to the university and major in their journey. This can include events that relate to their prospective majors like the major fair or cybersecurity challenge. This is to ensure that students have every opportunity to enhance their knowledge in their field and gain experience that can further their professional development. There were also various outreach goals as well. The first goal was to let them know I am here as a resource and to get an idea of who they are and what help they may need. This means the first meeting/message should be more of a 'getting to know you' method. After this, one should begin asking them general questions about themselves, one needs to ask about

the students' Spring courses and related goals/expectations. The next meeting/message will of course vary a bit depending on how the individual student answered the questions and their particular needs. The students could also reach out seeking for more informal help, like to talk or vent. Others may need more directive help with time management/motivation/study skills etc. Also, it is a great idea to recommend that each student set a semester goal and related weekly goals so that needed context will be there for meetings and resources can be provided as needed. Beyond these individual meetings, mentors may consider reaching out in the form of periodic check-in messages. These could contain a quick hello or motivational quote to encourage their efforts. It could also contain a potential event that might interest them or pertain to their major. These goals were discussed in my first meeting with Professor Thorbjornsen and the other peer mentors. She discussed how to effectively log hours, reach out to students, and other events that she may require assistance with. These are the events that can be recommended to students and relate to cybersecurity. I feel that after this meeting, I was equipped with the information and resources needed to ensure these students got the help they deserve. My supervisor would also continue to reach out with new internship or mentorship opportunities to fill hours.

### **3. Management structure and effectiveness**

Leonora Thorbjornsen, my supervisor, took a management approach that was secondary to the events and the advising of our assigned students. The supervisor would reach out to recommend advise and make sure we were on track. She would answer any questions we had if we asked, and she would frequently equip the mentors with tools for successful advising. This management style placed a great deal of trust in the peer mentors and ensured that we were holding up our end. We were allowed to form our own methods of modality meaning we had the freedom to choose how our students communicated with us. This could include by emailing, discord, virtual meeting such as Zoom, or other alternatives. This is a great management decision because the various means of communication means that the students are more likely to interact. If a student does not have a discord account and that was the only method we were instructed to use, it would be problematic. This is also the case with emails because students can get overwhelmed by the sheer volume of messages they receive from canvas, the university, classmates, and others. Also, setting a private Zoom code for virtual meetings ensures that the students can meet close to face-to-face if they prefer. This directly connected with our advising schedules that we had the freedom to set, but we had to ensure that we were meeting the required hours for the credits we selected. She encouraged that we contact our assigned students every week to see how they were holding up in their classes. This would also show concern on behalf of the mentor and make it more possible for some correspondence to occur with the students. I firmly believe that the indirect management approach taken by Leonora massively benefited the mentors and mentees. She was always available to ask questions and offer advise with her frequent check-ins, but she was never overbearing or controlling so it impacted the internship negatively. Many businesses and organization have the problem of over management, and this is something us mentors did not have to face under her leadership. If an employee needs to make a sizeable change to the infrastructure of the company, they need to wait for the approval of their

higher ups, and this causes a slowdown in the completion of the project. If they were trusted to perform their duties adequately, they could implement the solutions to the problems the organization is facing faster and thus ensuring a healthier infrastructure overall. I feel that if more systems adopted this indirect management approach that their workers would be more successful in completing their assigned tasks and keeping morale high.

#### **4. Work Duties, Assignments, and Projects**

One of the first things that was mentioned in the internship as an alternative mode of securing internship hours was to help Professor Thorbjornsen with a project she has been working on. This project was to create a YouTube playlist for new students in the degree path that would aid them in their time here at university. This means that it could include cybersecurity related videos and videos relating to how college can be made easier with certain habits like time management, ensuring mental health, best practices of studying, and other ways to improve their starting years at university. My supervisor had already found and created a solid foundation to this project with the videos she selected, and I had to add on to this in a way that would not repeat information again. I first wanted to add a video that thoroughly explained what cybersecurity was, why it is important, how the job and topic functions, etc. I found a video explaining this, and I thought it would be a nice introduction and further elaboration of the field for a newcomer to the major. The next video that I added to the playlist was one that explained what the most common coding languages for cybersecurity was. I felt that this would be something that the students could use to structure their class schedules around and gain an understanding of coding, which is a very important skill and element to cybersecurity. Next, would a video that explained the best certifications to acquire such as CompTia A+, CompTia Network+, CompTia Security+, and others. This can be very useful for a student for deciding what role they want to have in the field based on the certifications and can give them an idea of what is needed in addition to the degree from Old Dominion. Another video was added that explained some general tips for how to be a successful student, which included studying tips, social tips, time management tips, sleep advice, and other helpful practices. I also placed a video in the cyber playlist that showcased the importance of coding in the field. It showed how in some roles this knowledge is vital and how it can be a useful tool to have in ones' professional arsenal. The following video that was added explained how cybersecurity can be a difficult field to get into, and it contained tips on how this can be made easier. The last video I placed into the playlist was about how a professional studied and later obtained their CompTia Security+ certification. I thought that this video was important because it walked through resources, such as O'Reilly media, that are used to study for the certification. I also added this certification specifically because it is the cert. that relates the most to the degree even if it is not the first one to be earned on the CompTia certification path. The additions that I made as well as the videos the supervisor had from the start formed an excellent introduction and roadmap to some of the largest topics and goals in cybersecurity and the project was most certainly worthwhile. I also went to in-person advising sessions with first year students and other peer mentors. We were there to aid my supervisor and other staff with registering students for their next semester at the college. The

faculty would outline a path that best suited their interests and goals and then the mentors would help them with the actual registration in Banner. We also advised them to methods of modality such as in-person or asynchronous, excellent professors we had in the past, and the courses that best fit their end goals. In addition to these events and the virtual assignments, I had my regular peer mentor duties. I reached out to students to see if they had questions or needed help finding any resource on campus. All of this was detailed in my work duties at the start of the internship by my supervisor. I completed all of these tasks to make a positive impacted on faculty, students, and myself in addition to filling the required work hours for the course.

## **5. Use of Cyber Security skills during the internship**

During the completion of this internship, I did not gain any knowledge that I did not previously know regarding cybersecurity. However, I did use my knowledge to ensure that I performed my duties to the best of my ability. This internship did strengthen what I already knew through answering questions that students had in the advising sessions and researching videos to add to the student playlist. I had to review the most important aspects of my time here at the university and the vital elements of a cybersecurity professional, which caused me to refresh some of the skills that have been neglected recently. My understanding of certain topics increased to point higher than they were will I was taking the courses because I could take it in entirely and not have to be worried about being graded on it later. The refresher of my knowledge was very beneficial for the students and me because it allowed me to advise them properly. The internship did however strengthen my communication skills, which are just as important in the field of cybersecurity as any other profession. It is needed when communicating with other workers, supervisors, or clients and this was something that I was previously lacking. This was due to me being introverted in nature and keeping to myself because I did not have any interest in clubs or events. I am grateful for the internship pushing me outside of my comfort zone and forcing me to talk to strangers that I did not previously know before the course. I also frequently collaborated with other mentors, faculty, and my supervisor. This adjusted me to working under someone and the general workplace environment because I have not held a job before this course. I would also like to address the frequently changing standards and practices in the field of cybersecurity. These are always evolving to reflect the times and technology that organizations use for their infrastructure, and I will learn the framework of whatever workplace that hires me to ensure the best result for the client, employer, and my career.

## **6. How the ODU curriculum prepared me**

Most of my courses here at Old Dominion have been completed asynchronously through online means. This could include virtual labs, quizzes, essays, exams, and other assignments. I did have a few in-person courses here at the university, but most of the courses were lecture based with the students needing to complete assignments later based on what was taught during the class. This means that I did not often collaborate or lead other students in assignments, such as group projects or presentations. It is for these reasons that I would say the ODU curriculum

did not aptly prepare me for the internship. It perfectly equipped me with the knowledge needed to be proficient in the field of cybersecurity, but the internship was something that I was not prepared for. This resulted in me adapting over the course of the mentorship and becoming more proficient in needed skills such as time management, communication, leadership, and driving interactions. These were benefits that I hoped to earn during my time in the course, and thankfully I was able to use them successfully as well.

## **7. Objectives fulfilled and unfulfilled**

The main objective I had going into this internship was to improve in some way from every assignment I was given, and the main areas I strengthened was my communication, networking, time management, and leadership skills. These are areas I was previously lacking in, and this is mostly due to my inherent nature and exposure. I have never been in extracurricular activities or clubs that exist in schools. This changed when I became part of a Living Learning Community or LLC in college. This is a group of students who live on the same hallway that have similar interests and majors. There are events held for these groups relating to the common interests and socialization occurs. My nature was challenged while being in the LLC, however it was truly confronted during the peer mentor internship. I often had to communicate with individuals that I did not previously know, and this includes faculty. I think that my communication skills improved the most during the advising sessions with students when next semester registration became open. It was here that I talked to groups of people driving the interaction with my knowledge of the degree and major. I advised many student choices relating to courses, professors, and modality. A group of students began to form around me waiting for my advice. I planned on this, and I had steps written on the board for them to follow while they waited. On this particular day, it was just me in the computer lab as well. My time management abilities were also tested due to the strain of balancing internship hours with the senior level courses I was taking. I was able to continue learning and complete all my work for these courses while satisfying the hours for the internship course. The networking skills objective was improved by my outreach to students through virtual check-ins. These occurred through emails and would have occurred in-person or through virtual meetings if they so requested. I also had to network with my supervisor on projects and upcoming events. Leadership is something I have never had much experience with, and this internship rectified that. I had to lead groups of students to success for registration and those who asked questions. I was the sole driver of guidance on the first day of student registration, besides the faculty, and this is when my leadership proficiency was tested most. I was scared to face all of these challenges, but they were easier than I first thought. I adapted quicker and more effectively to the situations than suspected I would. I feel that because of my experiences during the internship I can now effectively lead a group, communicate clearly and thoroughly, network efficiently, and manage my time properly during a stressful schedule. This internship has strengthened areas of mine that were weak before, and I think I am better equipped to have a career in the field on cybersecurity because of it.

## **8. Motivating Aspects of the Internship**

I would say the most motivating part of the internship was the interactions I had as a peer mentor. Completing the assignments or projects my supervisor tasked me with was satisfying, but the conversations with students were the most rewarding. The bulk of my exchanges occurred with students asking me for advice on courses and course work. I did not receive lots of engagement online through my email messages, but the in-person interactions were numerous at the events I attended. There were large groups of students asking me questions about the degree path and field of cybersecurity. It was a joy to answer these questions and benefit someone's journey toward their degree. These questions could range from "what professor should I take?", "what class gets me the skills that relates most to my intended position?", "where do I find a resource online or on campus?", etc. I also interacted with faculty members and my supervisor aiding them in their needs and projects. The privilege of being allowed to assist those who need it brought me supreme joy and boosted my self-esteem. I have grown from this experience, and it was largely positive.

## **9. Discouraging Aspects of the Internship**

The most discouraging aspect of the internship was the first weeks as a peer mentor. I did not really know the best way to generate interactions from the students, and when I sent them messages, they often did not reply. This made me feel as if I was doing something grossly incorrect because no one was asking questions. I chalked this up to the new students wanting to be independent and solve problems on their own for the first weeks they were at university. I can relate because I did the same thing in my first year. My supervisor also told me that sometimes people will not reach out to you even if they know you are at their disposal, so a friendly reminder or check-in can help warm them to the idea of assistance. This problem changed when I started going to the events held for students. I met many of the students at these events and they asked me questions frequently. I can only assume that they preferred to have their questions answered and explained in-person. This boosted my morale and was a great time during the internship, but it left me curious as to why they failed to utilize the tools I provided them with, such as my Zoom meeting code. This is not exactly the same as in-person conversations, but it is approximate and more convenient for them because they do not need to leave their rooms. In the end, the engagement with students improved and so did my time as a peer mentor.

## **10. Challenging Aspects of the Internship**

There were many hardships and challenges that I faced during the completion of my internship. One of these was drawing engagement from the assigned students. Engagement is easy to draw when they are in front of me at an event, but online they can just choose to ignore my messages or maybe they don't see them in the flooded inbox that is our student email. This caused me to worry about getting in my hours as they were not asking me questions during my designated free hours for the internship, which lead to some wasted effort on my end. However,



it was not a complete waste because during this time, I completed other virtual assignments and projects my supervisor tasked me with, like the freshman cybersecurity playlist. Another challenging aspect of the internship was meeting the hours needed for the credits selected. It is easy to keep to a schedule, which I had in place to get my ten hours every Thursday for meetings and questions, but when things get more chaotic it is difficult. I had incidents like events and exams coinciding with each other, so I couldn't split my hours that week the way I wanted to. I had to choose between studying as much as possible to ensure the best grade I could get versus logging extra hours for the internship. Additionally, before the first event, I cleared my schedule to go to my mother called me to inform me of my great grandmothers passing. I had to leave that weekend to attend the wake and funeral, so I was unable to go to the great computer challenge. Things like this happen in life and one was to overcome them, but that does not mean the process was easy by any means. I only wish that more students reached out to me so that I could have been more useful to them and their journeys.

## **11. Recommendations for Future Internships**

Firstly, I would recommend this peer mentor internship under Professor Thorbjornsen to anyone that wants to increase their communication and time management skills. These are the biggest benefits I got out of my time during the program, and these are both vital skills for a professional to possess. Second, the mentor needs to knowledgeable of various cybersecurity topics and the resources, physically and digitally, that the university possesses. This is to ensure that they are performing their duties and advising as best as they can. This means the students will not get unhelpful advice. Third, they need to have a relatively malleable schedule for this internship to work. I had many asynchronous courses, and this allowed me to work at my own pace and leave room for internship hours by completing other course work early. This could be done with mostly in-person courses, but it would be much more difficult. They should frequently mix their efforts up between going to events and completing virtual assignments to avoid burnout. Hopefully, this advice will improve the experience of future peer mentors in this program.

## **12. Conclusion**

This internship was the most unique course that I have taken throughout my entire college career. The main take-aways that I have from the internship would be the improvements to my communication, networking, leadership, and time management skills. These take-aways will continue to benefit me the rest of my time in college. However, the remaining time I have in college is very limited because this is my last semester. I have used these skills in public to order products and with friends to better coordinate get togethers on my free weekends. My time spent and knowledge gained from the internship will benefit me in my professional career as well because the skills that I strengthened are important for a worker to have in nearly any field. In conclusion, I would take the internship again, even if it did not contribute to the completion of

my bachelor's degree because it brought me out of my sheltered nature and made me a complete and more professional individual.